

HELPPFILE

My desktop icons disappear

Q My PC recovered from a virus attack after I spent gruesome hours installing anti-virus and anti-spyware software, not to mention the time the cleaning process took. I had been using McAfee Internet Security 2007 but it failed to identify the virus so I removed it and installed a trial version of the Kaspersky Internet Security suite. At the same time, I installed Spybot and Windows Defender to make sure my PC is clear.

I have run lots of scans with those programs, and their results show that they have eliminated all the threats, but I'm still having a problem with my PC.

After it starts up, it looks as if it's working fine until a few minutes later, when the icons suddenly disappear. I can see only the desktop background image and there is nothing I can do after that. Now the only way I can access some programs and the internet is to use the Task Manager and run programs manually from there.

Aga Estrada, gringotts@yahoo.com

A This kind of damage is not uncommon after removing viruses or spyware. In fact, I have seen many similar cases recently. The infection may have altered some system files, and the anti-virus or anti-spyware software may then have removed the entire file.

When all the desktop icons, the taskbar and the Start menu suddenly disappear, it is usually because Windows Explorer (which is the Windows 'shell' or user interface) has crashed. Unfortunately, such crashes seem to be fairly common with Windows Vista, even when it has not been infected with a virus.

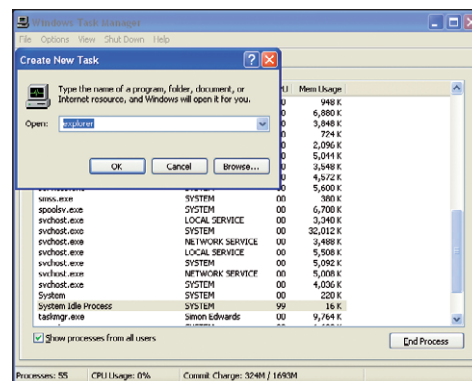
When this happens try pressing Ctrl, Alt and Delete at the same time to bring up the Windows Task Manager. Click on the Processes tab and look for a process called Explorer.exe. This should always be running, so if it isn't, that accounts for your lack of icons or taskbar. From here, switch back to the Applications tab and click the New Task button at the bottom of the Applications window. Type the name of

the program you want to run, which in this case is Explorer.exe. Click OK and with luck (if Explorer was not too badly messed up) your icons will reappear.

You may find it helpful to look in the event log to see what happened. Click on Start, then Run, type in Eventvwr.msc and click OK. Look in both the System and Application logs for fatal error messages.

If you have a complete Windows installation CD, the easiest cure is to do a repair installation of Windows. This should update the Windows files, while leaving all your applications and data untouched. It sometimes results in data loss, though, so you should back up your data first, just in case. You will also need to reinstall Windows updates.

If your computer came with only a restore CD or partition, which wipes all your data and returns the hard disk to the state it was in when it left the factory, you won't be able to perform a repair installation unless you can borrow someone else's Windows CD. However, as the damage usually occurs in files that are shared by both Explorer and Internet Explorer, it is worth trying to install or reinstall Internet Explorer 7. With luck this will fix the problem.



▲ Disappearing icons may be a result of Explorer crashing, so try restarting it in Windows Task Manager

Where do I find VBasic?

Q About five years ago, you published a series on a version of Basic that was built into Windows. This was not VB6 or VBExpress – if I remember correctly, it was called VBasic. It was very useful but I can no longer find it. I now use Windows XP, whereas at that time I was running Windows 98. Does XP still have this useful feature, and can you tell me how to find it?

Colin Walker, colin@collywobbles.f2s.com

A You are thinking of Visual Basic Scripting edition, also known as VBScript, which is built in to Windows, including XP and Vista. It is closely related to VB for Applications (VBA), which is built into Microsoft Office. VBScripts are stored in text files with the .vbs extension and can be run either

in Internet Explorer or by a program called Windows Scripting Host. This program comes in two versions: Wscript.exe, which has a GUI interface, and a command-line version called CScript.exe.

VBScript is similar to JavaScript but it works only with Internet Explorer. Web designers prefer JavaScript, which runs in other browsers such as Firefox, Opera and Safari, unless they are writing in-house applications for companies that use Internet Explorer exclusively.

VBScript is very useful for system administration tasks. If you want to learn more about it, try the tutorial on getting started at www.w3schools.com/vbscript. By far the best book on VBScript is called *VBScript in a Nutshell (2nd Edition)* (O'Reilly Associates) It costs £16 from www.amazon.co.uk.

CONTACTS

PLEASE EMAIL THE
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helpfile@computershopper.co.uk
for all PC problems

softwarehelp@computershopper.co.uk
for help with software applications

buyinghelp@computershopper.co.uk
for advice on PC purchases

YOU CAN ALSO WRITE TO US AT:

Help
Computer Shopper
30 Cleveland Street
London
W1T 4JD



Two routers, but I can only access one admin page

Q I recently bought a D-Link DIR-655 router and I also have a Belkin 7633 modem router. The Belkin is in 'bridged modem' mode, while the D-Link connects to the internet using PPPoE. I did this because I wanted QoS, Pre-N and Gigabit Ethernet ports, which the Belkin doesn't provide. However, the Belkin's modem has a signal-to-noise ratio (SNR) tweaking option for a higher sync rate, which it automatically negotiates. Stability has been good on an 8Mbit/s Bulldog ADSL service at full sync rate.

The problem is that once a PPPoE connection is established, I can no longer access the Belkin admin pages. It just times out. I can ping the Belkin's IP address, so it's definitely accessible, but not through the webpage interface or command line. If I connect directly to the Belkin, I have the same problem.

Rebooting the Belkin allows me back in, but then the D-Link's admin page and internet access stop responding. The D-Link's IP address is 192.168.0.1, while the Belkin uses 192.168.0.100. I also tried its default address of 192.168.2.1, but with no luck. The PC's IP address is 192.168.0.2 with the default gateway set to the D-Link's IP. The subnet mask is the default on all three connections. How can I get access to both routers' admin pages and keep internet access?

Darrin Maunders, via email

A This will not work if both computers are set to use the same subnet IP range. By default the D-Link router will use a gateway address of 192.168.0.1 and will issue IP addresses in the form 192.168.0.xxx with a subnet mask of 255.255.255.0. This subnet mask means that if your computer is looking for any IP address that matches the first three sets of numbers (in other words, 192.168.0.xxx), it will expect to find it on the local network. If it is looking for any other IP address, it will try to connect through the gateway.

Using the Belkin's default IP address range of 192.168.2.xxx would get round this problem, but when you set 'bridged' mode it does not use the internal IP address. Instead it functions only as a modem. Unfortunately, the Belkin router manual and firmware are very confusing. Under the WAN Connection setting you can choose PPPoE, PPPoA, Dynamic IP (1483 Bridged), Static IP and finally Modem Only. The use of the word 'bridged' to describe Dynamic IP has confused many users. This is not the correct choice – you need to choose Modem Only.

In this mode you need to specify the VPI (UK

default is 0) and VCI (UK default is 38) settings, or use the values specified by your ISP. With the Belkin set to modem only, you would then configure the D-Link router to use PPPoA and enter your usual login details.

Now, once you have the Belkin running in modem-only mode, your D-Link router will obtain an IP address and gateway address from your ISP. It will then expect to find any addresses in range 192.168.0.xxx on its LAN ports and will try to access any other IP address through the ISP gateway address. If you try to use your web browser to connect to 192.168.2.1, which would usually provide access to the settings page of the Belkin router, the D-Link will send it to your ISP gateway. As 192.168.2.1 is not a valid internet address (it is defined as 'non-routable', meaning it is reserved for use on local networks only), the ISP gateway won't know how to connect to the Belkin.

I'm told that if you set the Belkin to use an internal address in the LAN range, such as 192.168.0.100, some routers will connect to it even though it is attached to the WAN port, but this is not standard behaviour.

It may also simply be part of the Belkin router's design that if it is in Modem Only mode you won't be able to see the router configuration page. In fact, there is probably no need to put the Belkin into Modem Only mode. Although lots of people claim that using double NAT is a bad idea, when you try to investigate why, most of the problems mentioned don't occur.

In my experience, using one router behind another works. I use such a configuration in my own office to separate the file-sharing LAN to which my office computers are connected from the LAN we use to connect customers' computers (which may be infected with viruses). This network also has public WiFi.

I have found only a few problems with this setup. There is a small increase in latency, which is likely to be of concern only to gamers, and an increased complexity when forwarding ports, running web servers and so on. There is also the possibility of errors such as using the same subnet for both routers, and problems with badly configured VPN connections.

While double-NAT has often been blamed for problems, in most cases these were due to using the same subnet for both routers, or too large an MTU value. Ethernet defaults to a packet size of 1,500 but PPPoA needs a slightly smaller MTU, such as 1,492.

If you make sure the routers use different subnet ranges, and check that the second router is set to the same MTU as the first, you shouldn't have any problems. The D-Link should be set to get a dynamic IP address from the Belkin. Then you should be able to access the management pages for both routers.

Reformatting RAID hard disks

Q I have two 320GB disks taken from a failed D-Link network-attached storage device that were configured as RAID 1 (mirrored) and formatted in a non-DOS format. Windows XP Home will not recognise them at all. I don't need the content – I just want the disks.

Someone suggested using HDDScan. This will recognise the drives but seems to be incapable of doing anything useful to rescue them.

Henry Chandler, DrHenryC@hachan.demon.co.uk

A It is always a good idea to test hard disks before use, but you need to reformat these disks to make them visible in Windows.

There are command-line tools available in Recovery Console, but if you have a working Windows computer, the easiest way is to attach the drive, click on Start, Run and type in diskmgmt.msc, then click OK.

This will run Disk Manager, which should see the drives and allow you to format them. It may ask you to delete existing unrecognised partitions first.

Your experts

HELPFILE

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Paul Mullen

With 27 years of PC experience as a power user, programmer and IT consultant, Paul Mullen answers all PC problems, tackling hardware, system and security issues.



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SOFTWARE HELP

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BUYING HELP

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Labs Manager Chris Finnamore recommends the best products for your requirements.



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CONTACTS

Please contact the relevant department at the email address listed above. You can also write to us at:

**Help
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30 Cleveland Street
London
W1T 4JD**

Please try to give full details of your problem. We need an email address or daytime and evening telephone numbers in case we need more information.

Although the policy of *Computer Shopper* is not to publish readers' email addresses, we include them in Help so that other readers with experience of similar problems can share their solution (please also cc any comments to the relevant Help department above). If you would prefer not to have your email address published, please say so. ➔

Feedback HP laptop wireless problem



I had the same problem with my HP laptop as Ken Hyde (*Helpfile, Shopper 241*). HP has accepted this as a general problem and has extended the warranty to 24 months to cover it.

The link on HP's website is hard to find, but readers can try <http://tinyurl.com/3ys9tl>. I bought my laptop from Staples, and when I returned it the shop sent it to HP for repair.

Tom Stephan, tomstephan@btinternet.com



HP's extended warranty applies only to HP Pavilion dv6000, HP Pavilion dv9000 and Compaq Presario V6000 series notebooks with specific serial numbers (check out the link for the precise details). It covers repair of the following problems:

- The notebook does not detect wireless

networks and the wireless adaptor is not detected in the Device Manager (after updating the BIOS to version F.3a or later).

- The notebook has no power or active LEDs.
- The notebook does not start.
- The battery charge indicator light does not turn on when the battery is installed and the AC adaptor is connected.
- The notebook issues a single beep during boot indicating no power.
- There is no video on the computer LCD panel or external monitor.
- The external monitor works, but there is no image on the notebook LCD panel.

This is quite a few issues for just one design of computer. I suspect they are all fundamentally related to overheating, which was an issue with the earlier dv7000 and dv8000 systems.

After HP receives your laptop it will do its best to repair it within 10 business days. UK customers should call 0870 010 432. Those in Ireland should call 1890 923 902.

Of course, with shipping time this means being without your computer for the best part of three weeks and, as you may not get back the same computer, or HP may wipe your hard disk, it's essential that you back up your data before sending your computer in for service.

As HP has now admitted that there is a problem and UK law provides buyers with protection against faulty goods, you may do better to talk to the store where you bought the computer. Ken Hyde did this and the Staples manager offered him a full refund or his choice of equivalent laptop from another maker. He chose a Fujitsu notebook instead.

What is this DVD drive?



I was interested to see your advice in *Shopper 241* on identifying a DVD drive in a Dell Inspiron. I recently bought a Dell Inspiron 530 with a 16X DVD+-RW drive. Wanting to know more about the drive, I went to <http://support.dell.com>, entered my service tag and looked in the relevant section of the manual. I couldn't find any information on the 'HL-DT-ST DVD+-RW GSA-H73N' DVD drive.

Dell support services informed me that "there is no specific documentation" on the drive. Is there another route I might try to get more detailed information about the drive?

Ted Ridley, ted.ridley@btinternet.com



GSA-H73N is the model number of a DVD+RW drive made by HLDS Inc. Typing the model number into Google shows that the Dell website has a page devoted

to this drive at <http://support.dell.com/support/edocs/storage/P153464/en/specs.htm>.

HLDS stands for Hitachi LG Data Storage and is a joint venture of Hitachi and LG Electronics. Drives from this partnership are often described as Hitachi or LG drives and appear in products from Dell, HP and other major PC manufacturers. The GSA-H73N was sold only to OEMs such as Dell and seems not to have firmware updates, unless the makers choose to provide them.

What's the best place for my paging file?



I have a network server for file serving and remote access. It runs Windows XP Pro but, with only 512MB of DDR memory, disk paging can be an issue, particularly when downloading. I notice the desktop icons take ages to appear when I log in with Remote Desktop.

I have one IDE hard drive split into a system drive (C:) and a working area (E:) for managing BitTorrent files. There is also a pair of large SATA drives in a RAID array (D:), on which I keep my music and photos.

Where should I put my page file? Are there any speed benefits to putting it on the SATA drives? Will the RAID array affect the performance if I do? Or should I just leave it on the E: drive, where it currently is?

Mike Chalkley, mike.chalkley@ntlworld.com



Deciding on the best place and size for a paging file is tricky, as so much depends on the way each drive is accessed. Ideally, if all drives were the same speed, you would put the paging file on the least-used drive, so that other file accesses did not interfere with paging accesses.

Placing it in its own partition helps avoid fragmentation, reducing head movement, but when that partition is on the same physical drive as a heavily used partition (such as your system drive), the use of a separate partition places the paging file further away from the

system files and tends to increase head movement time rather than reduce it.

If you use your BitTorrent server heavily, having a separate partition for the BitTorrent temporary files (rather than a separate drive) will increase head movement, slowing access both to the system files and the paging file. While SATA drives are no faster than Parallel IDE drives using the same mechanism, newer, larger drives tend to be faster as they have a higher data density. This means that the heads pass over more data per second, which in turn increases the read rate.

Assuming you use RAID 0 (striped) or RAID 5 (striped with parity) rather than RAID 1 (mirrored), RAID will make disk reads faster, as read activity is shared equally between two drives. As the RAID is mainly used for storage, it is likely to be accessed less often than the system drive. The system paging file should always go on the fastest and least-used drive, which will be your RAID array.

Defragment the drive before placing the paging file there, and make the minimum size the same as the maximum size to ensure that it is created without fragmenting. I suggest placing BitTorrent temporary files on the RAID drive, too.

Using a separate drive to hold your BitTorrent temporary files would improve performance further. You may also want to adjust Torrent parameters to limit the number and speed of file downloads. In any case, since the A in ADSL stands for Asymmetric, your DSL line will have a

much slower upload speed than its download speed, and this limits file access speed when you use a home computer as a server. This is because other people's downloads are using your upload bandwidth. If you access the computer remotely from outside your home, any downloads will severely affect the remote connection speed.

Having said all that, the slow appearance of icons is not due to paging file delays directly, although paging may slow access to system files when they share a physical drive. Desktop icons are usually cached in a separate file for each user. You will find this in the Documents and Settings, Username, Local Settings, Application Data folder with the name IconCache.db.

Sometimes this file gets corrupted and is slow to load. When iconcache is corrupt Windows must open each application file to read its icon. Deleting iconcache.db and allowing Windows to rebuild it usually fixes the problem. Unfortunately, Windows Remote Terminal Services (which includes the Remote Desktop Connection) doesn't seem to use the existing Iconcache.db file but rebuilds it for each new session. This makes it slow to start even on a little-used PC. Other remote access programs, such as LogMeIn (www.logmein.com), Remote Administrator (www.radmin.com) or VNC (www.tightvnc.com or www.uvnc.com) do not suffer from this delay, as they display the desktop that loads when Windows starts. Try using TightVNC or UltraVNC to access your PC remotely.

Shadow folders ate my disk space

Q Windows XP has just warned me that my C: partition is running short of disk space. I found that under C:\Windows\Microsoft.net\Framework I have a number of large folders. One, called v1.1.4322, includes 189 folders called SHADOW- followed by three or four digits, which total 1.5GB. Another, called v1.0.3705, has 1.3GB of files including 185 SHADOW folders. The v2.0.5727 folder contains 89.6MB of files but no SHADOW folders. New shadow folders appear daily.

Can I delete the v1.x folders to regain the space? I presume it would be a good idea to move them to my data partition and keep them until I'm sure everything still works.

Steven Smith, steve@svp.uk.com

A Many applications use Microsoft's .Net Framework these days, and these folders contain the run-time library files it requires. You were probably asked to install .Net Framework redistributables when you installed some application. Since there have been several different versions of the framework (1.0, 1.1, 2.0, 3.0 and now 3.5) and each application needs the version it was

compiled with, you may have several different versions of the Framework on your PC, each used by a different application.

As the name implies, .Net was designed with the needs of web-based applications in mind. One feature that was designed into it is Shadow Copy. As an application starts, instead of using the original program files, it can make a copy of these files called a shadow copy and use that instead. The advantage is that program files can then be updated while applications are running, without having to shut down the server. By default, these shadow copies are stored in folders beneath Windows\Microsoft.Net\Framework.

This feature is only really useful on servers, especially web servers, which must always be available. For a standalone PC or an individual workstation, shadow copies are not very useful. Unfortunately, as far as I can see, Microsoft left the decision of whether to use shadow copies down to the developer of each application, and there seems to be no way to turn off this feature on an individual computer.

The size of these shadow copy folders on your PC seems unusually large. In most cases the entire Microsoft.Net tree, with all the folders under it, is less than 100MB. I suspect that some

application has erroneously created multiple copies of its shadow folder. While most of the files in the Shadow folders are copies of .Net run-time libraries, you will sometimes find program-related files in there too. If so, you can get a clue as to which application was responsible by checking the Properties of these files in the Shadow folder.

Most people don't have multiple copies of shadow folders, so I suspect that a bug, either in an application or the .Net Framework itself, is causing multiple folders to be created. It would be worth downloading the latest service packs for the versions of .Net Framework on your computer. Verison 1.0 is up to SP3 (released on 10th July 2007), while V1.1 has SP1, which was released on 30th August 2004, but with a later security update on 10th July 2007. Versions 2.0 and 3.0 both have an SP1, which was released on 23rd January 2008. Version 3.5 was released on 3rd January 2008 and has no service pack yet.

It may be that you don't even use any applications based on .Net Framework 1.0 any more, but it's safer to keep the main Framework files for each version of .Net. There's no harm in deleting all the Shadow folders, though. If they are needed again they will be re-created.

Shut off sounds at night

Q My Windows XP Pro machine runs all the time. Can I use Windows Scheduler to toggle sound output off and on at set times? I have looked for a suitable command-line switch associated with Sounds but I can't find one.

Another alternative might be to have Scheduler write a Registry entry at set

times to toggle sounds, but I don't know if this would work.

Richard Grant, richard.grant@dial.pipex.com

A Microsoft forgot to include this feature in Windows but there are plenty of authors who have written free utilities to do exactly this. I suggest you take a look at

www.nirsoft.net/utills/nircmd.html, where Nirsoft documents a range of commands it has developed to do many useful functions.

To mute the system volume, for example, use 'nircmd.exe mutesysvolume 1' and to turn it back on use 'nircmd.exe mutesysvolume 0'. You could then use System Scheduler in the Control Panel to run these commands to turn the sound off and on at certain times.

My PC failed Genuine Windows Validation

Q I recently experienced some problems with my Windows XP PC and a friend took it away and replaced the hard disk for me. Now it works fine but I get a message when logging in: "This copy of Windows did not pass Genuine Windows Validation and you have not yet resolved the problem. To protect your copy of Windows click Resolve Now."

Clicking the Resolve Now button just logs into the system as normal. How can I overcome this problem?

Brian Buck, brianbuck3@blueyonder.co.uk

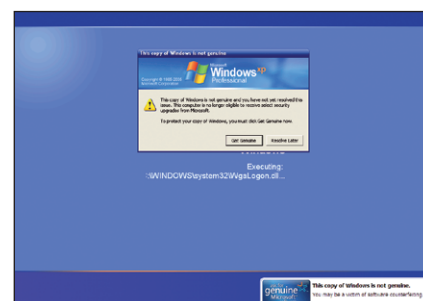
A When your friend replaced the hard disk, they must have reinstalled Windows on the new drive. Unfortunately, they did not use a copy of Windows that was compatible with the Windows licence key on the back of your computer but instead used a pirated copy of Windows XP, most likely a corporate version of XP Professional, together with a CD installation key that is on Microsoft's list of stolen CD keys.

You need to find the CD or DVD that came with your PC. This may have been just a system recovery disc, which restores the hard disk to the condition it was in when it left the factory, or it may be a proper Windows CD. Unfortunately, many PC manufacturers save a few pennies by not supplying a CD but instead storing the recovery information in a hidden partition on the hard disk. This is no use if the hard disk fails. In this case the maker should allow you to buy a restore CD for a nominal fee.

Provided you have a genuine Windows licence sticker on the back or the side of your PC, you should also be able to use a compatible version of Windows XP with the key from the sticker. To be compatible you must use either Home, Professional or Media Center Edition as shown on your sticker. If the sticker has a computer manufacturer's name, or says 'OEMACT', or 'OEM', you must use an OEM CD. In this case the 'Retail' or 'Corporate' versions of Windows won't work with your licence key.

If the sticker names a computer manufacturer, or says 'OEMACT', you should try

to get a CD supplied by the same computer maker, as it will recognise the computer's BIOS and won't need validation. If the OEM CD is not from the same maker as the PC, it will install but you will have to call Microsoft to validate Windows, which basically involves explaining what happened and why you had to install using a different Windows CD. You should then be given a code to complete the process.



▲ Microsoft will demand an explanation if it suspects that you have a pirate copy of Windows

What is WBEM, and do I need or want it?

Q Can you help me please? My PC appears to have a product called WBEM on it, which causes me some irritating problems. From brief searches on the web it appears to be either spyware or a product called Web-Based Enterprise Management (or perhaps both).

My anti-virus software (Kaspersky) spots it trying to access the Registry, to which I say no thanks. However, whenever I do a Registry scan using System Mechanic, it finds erroneous entries, despite Kaspersky's vigilance. I delete these entries. This is worrying because I don't know what the software is or what it's doing to my PC.

Can you tell me how this might have been installed and whether it is safe? Is it something that I, as a normal home PC user, might benefit from? If not, how can I remove it?

Frank Topp, franktopp@blueyonder.co.uk

A Web-Based Enterprise Management (WBEM) is a set of internet standards that define a framework by which a network administrator can manage applications or hardware devices running on different computers over the internet. WBEM is not an actual product; it's just a set of concepts. These involve an entire alphabet soup of acronyms, such as CIM, WSDM, URI for DTMF XML and SLP, which I won't even attempt to define here. The details are published by an organisation called Distributed Management Task Force (which, of course, is known as DMTF). Just to add one more acronym, Microsoft's implementation of WBEM is known as Windows Management Information (WMI).

Essentially, WBEM defines the way in which a user interface, running on one computer, can communicate across a network with software running on another computer. It was developed with the needs of network administrators in

mind so, for example, a network administrator might want to control and get reports back from anti-virus software running on each networked computer.

However, it is quite possible that the writer of some anti-virus software might decide to reuse code used in its enterprise versions to handle the way its standalone home anti-virus software user interface communicates with the anti-virus service running on the same computer. So WBEM may be an integral part of any software application. Microsoft also uses its version (WMI) for many Control Panel functions, such as Windows Disk Management, on standalone computers.

Of course, WBEM might also be useful for virus or spyware writers who have to manage an entire network of infected computers. Virus and spyware authors also tend to pick filenames that are very similar to those of files found on a Windows computer. They may start their filenames with the letters HP to cause confusion with printer driver software, for example.

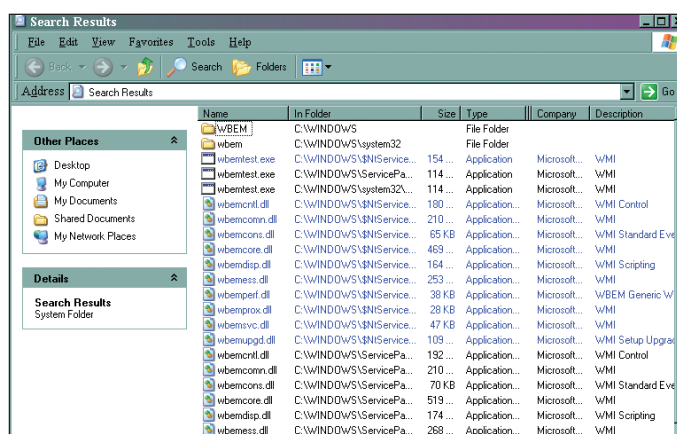
Having said all that, it is likely that Kaspersky would have detected any spyware or virus on your computer. Lots of software will attempt to write to the Registry so I am inclined to think

that files related to WBEM are probably part of Windows or have been installed by some legitimate application.

Most genuine executable files (.EXE and .DLL) should have the company name, as well as the name of the product they are associated with, embedded as part of their properties. You can display this information by right-clicking on a file and choosing Properties. If you have a lot of files (such as the results of a search for files with wbem in their names, as in the picture below), check by selecting View Details and right-clicking on the header, which brings up a list of possible fields. Click 'more', which allows you to select fields such as Company and Description.

Unfortunately some developers (including well-known companies such as Microsoft and Symantec, which should know better) don't always include this information, so you can't assume that a file without it is harmful.

Windows XP itself includes a lot of files with names that start WBEM, mostly in the Windows\System32\wbem folder, although there is also a Windows\WBEM folder with a couple of Microsoft files in it. All the executable files should contain the company name Microsoft and a description of their function.



◀ Most (but not all) genuine files provide information on their maker and the application they're associated with

CMOS Checksum Error on startup

Q When I switch on my computer I get an error that reads, "CMOS checksum error – Defaults loaded. Press F1 to continue, DEL to enter SETUP." When I press F1 the computer carries on with the normal startup procedure, but when the desktop appears the clock is always at 0.00.

When I go into Control Panel, Date & Time, the clock is always at Jan 1st 2003. I adjust the date, year and time but when I restart the computer I'm back to the "CMOS checksum error". This has only started happening in the past three days.

Terry Smart, terry.smart@talktalk.net

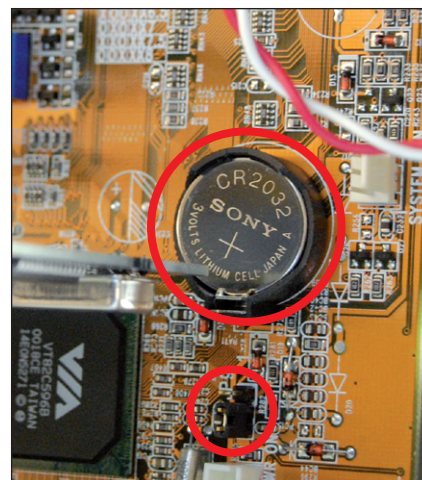
A You probably need to replace the CMOS battery, which supplies power to the PC's clock chip when the computer is turned off. The same chip also stores some BIOS settings, hence the "defaults loaded" message.

The battery on most motherboards is a coin-sized disc, usually about 25mm in diameter, and of the CR2025 type or similar. It is a rechargeable battery and recharges while the computer is running, but after a few years it will cease to take a charge.

If the computer has not been used for a few weeks, the battery may still be fine but may simply have run down. Leaving the computer on for 24 hours should help recharge it.

Most motherboards also have a jumper to clear the CMOS settings. If you don't have the motherboard manual, you may still be able to identify this jumper as it is often labelled. It is usually located near the battery and generally has three pins.

If this jumper is left in the 'clear' position, or is missing altogether, you will also get this error. Some brand new motherboards come from the factory with the jumper set in the clear position to avoid running down the battery.



▲ If your PC is living in the past, you may need to change the CMOS battery on the motherboard (top). Check the jumper, too (bottom)

Feedback DNS Service and problems connecting to websites



I was interested to read your reply to Pramila Sashidharan (*Helpfile 240*). I also use Virgin Media as my broadband provider, and I was having intermittent issues when trying to visit websites. Even major sites such as Google would come up as not being available, but then later in the same day (or after a router reboot) it started working. I use Windows Vista with both Internet Explorer and Firefox.

I found that I could access the sites when using IP addresses even when the named HTTP address (for example, *www.google.com*) was not working. This led me to think that there may be a problem with DNS settings. I changed my router to use the DNS servers from OpenDNS and haven't had a problem since. This also worked for a friend who was having similar problems with Virgin Media.

Wayne, via email



Although I think Pramila's problems were very different from yours, DNS problems are the cause of many

internet connection problems. Anyone can use OpenDNS (*www.opendns.com*) – all you need to do is set the DNS server addresses in your Network Connection Properties (or in your router's configuration page) instead of checking the box to obtain DNS server information automatically from your ISP.

OpenDNS can be a very useful service. It's free and offers many enhancements over standard DNS, such as filtering out 'bad' sites. However, because a computer makes so many DNS access requests, it is very important to use a DNS server that is geographically very close to you as measured by a low ping response time. Usually the closest DNS servers are those provided by your ISP.

That said, if your ISP's DNS server is overloaded or having other problems, OpenDNS may provide a better service. Try using the command `ipconfig /all` to see your

current DNS server settings and then try to ping them. Depending on the speed of your connection, a good ping time should be well under 20ms. Then try to ping the OpenDNS servers at 208.67.222.222 and 208.67.220.220. These have local mirrors to minimise access time, but may still be slower to access than your own ISP's servers. If the times are not too different, OpenDNS may be a good choice for you.

```

C:\Documents and Settings\Simon Edwards>ipconfig /all

Autoconfiguration Enabled . . . . . : Yes
IP Address. . . . . : 10.105.0.111
Subnet Mask . . . . . : 255.255.0.0
Default Gateway . . . . . : 10.105.0.1
DHCP Server . . . . . : 10.1.1.53
DNS Servers . . . . . : 10.1.1.101
                        10.1.1.53
Lease Obtained. . . . . : 14 February 2008 13:37:59
Lease Expires . . . . . : 18 February 2008 13:37:59

C:\Documents and Settings\Simon Edwards>ping 10.1.1.101

Pinging 10.1.1.101 with 32 bytes of data:
Reply from 10.1.1.101: bytes=32 time<1ms TTL=127
Reply from 10.1.1.101: bytes=32 time<1ms TTL=127
Reply from 10.1.1.101: bytes=32 time<1ms TTL=127
Reply from 10.1.1.101: bytes=32 time<1ms TTL=127

Ping statistics for 10.1.1.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\Simon Edwards>

```

▲ If your ISP's DNS servers are a little sluggish, you may find OpenDNS a better bet. Give them both a ping to find out

Where should I put my router?



I suspect I am in the minority in not having a wireless network, an oversight I am in the process of correcting. I would appreciate some advice as to where to set up the modem/router.

I live in a rather old house and the telephone line enters the house in the hallway. There is no electrical socket in the hallway and, given the thickness of the walls and the distance from an existing socket, putting one in is not an easy option.

I have extended the telephone line by means of a splitter up the stairs to a bedroom, which does have electrical sockets. Could you tell me if it is possible to run the modem/router off the telephone line extension? If so, what additional equipment would be required?

Fred Dixon, *fred.dixon@tiscali.co.uk*



There is no need to place the ADSL modem or router near the master socket. You will usually want it to be near your main computer, so use an extension to take it to the most convenient point. The DSL signal has travelled miles through telephone wire to reach your house, so a few more yards of wire won't hurt. Beware, though, as poor contacts can badly affect signal quality, and plug-in adaptors can often make poor contact over time.

For this reason I prefer to wire the extension going to an ADSL modem directly rather than using one of the plug-in adaptors. Whether this is possible in your situation depends on the kind of master socket you have. If BT has fitted your socket with an ADSL faceplate, with two sockets on the front, then the hard wired connections are filtered and can be used only for non-ADSL equipment.

Bear in mind that if you don't have an ADSL faceplate on your master socket, you must use filters on every piece of telephone equipment, except the DSL modem/router. The ADSL faceplate has filters built in, and separate sockets for voice and ADSL, so there is no need to use plug-in filters.

Old houses are notoriously difficult to install wireless in, as the thick brick walls reduce the signal. Try to place the wireless router in a central location as close as possible to the places where you want to use wireless equipment. A bedroom would be ideal but, if you plan on getting a wireless signal in the back garden, a back bedroom would be preferable.

If you have no choice but to place the router at one end of the house, make sure you buy a router that lets you replace the built-in antenna with a higher-power model.

Will Vista allow me to upgrade processors?



I was impressed by your review of the Pentium Dual Core E2140 processor in *What's New, Shopper 237*. I planned to replace my poor old Celeron-based system with a home-built PC based on this processor. I was going to use one of the motherboards reviewed in the same issue to make a low-cost system with room for upgrading. I'd buy a faster processor later, when prices dropped a bit.

Is there a problem, though? When I upgraded from Windows 98 to Windows XP, it seemed clear to me that Microsoft had taken to enforcing the condition that you install your copy of an operating system on

one system only by logging the details of the processor and chipset when you activate. Is it the same with Vista? If I followed my plan, would I have to buy Vista again when I changed the processor? If so, assuming I'm not ready for another operating system such as Linux, might I not just as well spend the money on a faster processor now?

Michael Pitt, *michael.pitt3@ntlworld.com*



The Vista activation system is similar to that of Windows XP. If you have a retail version of the operating system (which includes upgrade versions), you can make as many changes as you want. If you make a lot

of changes at the same time, you may have to call Microsoft to reactivate the software, but that's all.

If you have an OEM version of Windows, where your certificate of authenticity mentions OEM or OEMACT, the licence covers only the system you purchased, and Microsoft defines the system by the motherboard. So changing motherboards is not allowed, unless your original motherboard failed and you weren't able to get an exact replacement.

In short, a simple processor upgrade, using the same motherboard, won't trigger the need to re-activate. Replacing the motherboard almost certainly will. ☹